In the Claims

1. (Previously Presented) An apparatus comprising:

a semiconductor wafer including at least one alignment mark;

a device structure formed over the semiconductor wafer; and

a masking structure formed over the device structure, the masking structure including an amorphous carbon layer, wherein the amorphous carbon layer is transparent in visible light range for allowing a reading of the alignment mark in the visible light range.

2. (Previously Presented) The apparatus of claim 1, wherein the amorphous carbon layer has an absorption coefficient between about 0.15 and about 0.001 at wavelength of 633 nanometers.

3. (Previously Presented) The apparatus of claim 1, wherein the visible light range includes electromagnetic radiation having wavelengths between 400 nanometers and 700 nanometers.

4. (Previously Presented) The apparatus of claim 1, wherein the amorphous carbon layer has a thickness greater than 4000 Angstroms.

5. (Previously Presented) The apparatus of claim 4, wherein the device structure has a thickness greater than 40000 Angstroms.

6. (Previously Presented) The apparatus of claim 1, wherein the masking structure further includes a silicon oxynitride layer formed over the amorphous carbon layer.

7. (Previously Presented) The apparatus of claim 1, wherein the masking structure further includes a photoresist layer.

8. (Previously Presented) The apparatus of claim 7, wherein the masking structure further includes an antireflective layer.

9. (Previously Presented) The apparatus of claim 7 wherein the photoresist layer includes at least one opening.

10. (Previously Presented) The apparatus of claim 9, wherein the amorphous carbon layer includes at least one opening continuous with the at least one opening of the photoresist layer.

11. (Previously Presented) The apparatus of claim 1, wherein the device structure includes a layer of a conducting material.

12. (Previously Presented) The apparatus of claim 11, wherein the device structure further includes an amorphous carbon layer, wherein the amorphous carbon layer of the device structure is transparent in visible light range.

13. (Previously Presented) A mask structure for a device, the mask structure comprising:

an amorphous carbon layer formed over a semiconductor wafer, the semiconductor wafer including at least one alignment mark, wherein the amorphous carbon layer is transparent to radiation having wavelengths between 400 nanometers and 700 nanometers for allowing a reading of alignment marks in the semiconductor wafer in the wavelengths between 400 nanometers and 700 nanometers.

14. (Original) The mask structure of claim 13, wherein the amorphous carbon layer has an absorption coefficient between about 0.15 and about 0.001 at wavelength of 633 nanometers.

15. (Original) The mask structure of claim 13, wherein the amorphous carbon layer has a thickness of at least 4000 Angstroms.

16. (Original) The mask structure of claim 13 further comprising a photoresist layer.

17. (Original) The mask structure of claim 16 further comprising a cap layer formed over the amorphous carbon layer.

18. (Previously Presented) The mask structure of claim 17, wherein the cap layer includes silicon oxynitride.

19. (Original) The mask structure of claim 16, wherein the photoresist layer includes at least one opening.

20. (Original) The mask structure of claim 19, wherein the amorphous carbon layer includes at least one opening continuous with the at least one opening of the photoresist layer.

21.-134. (Canceled)

135. (Currently Amended) The apparatus of claim 1, wherein the masking structure further ~~comprising~~ comprises an antireflective layer, and wherein the antireflective layer is directly contacting the amorphous carbon layer.

136. (Currently Amended) The apparatus of claim 1, wherein the masking structure ~~comprising~~ comprises a silicon oxide layer, and wherein the silicon oxide layer is directly contacting the amorphous carbon layer.

137. (Currently Amended) The apparatus of claim 136, wherein the masking structure further ~~comprising~~ comprises a photoresist layer, and wherein the photoresist layer is directly contacting the silicon oxide layer.

138. (Currently Amended) The apparatus of claim 1, wherein the masking structure further ~~comprising~~ comprises a hydrogenated silicon oxide layer, and wherein [[in]] the hydrogenated silicon oxide layer is directly contacting the amorphous carbon layer.

139. (Currently Amended) The apparatus of claim 138, wherein the masking structure further ~~comprising~~ comprises a photoresist layer, and wherein the photoresist layer is directly contacting the hydrogenated silicon oxide layer.

140. (Currently Amended) The apparatus of claim 1, wherein the masking structure further ~~comprising~~ comprises a silicon oxynitride layer, and wherein the silicon oxynitride layer is directly contacting the amorphous carbon layer.

141. (Currently Amended) The apparatus of claim 140, wherein the masking structure further ~~comprising~~ comprises a photoresist layer, and wherein the photoresist layer is directly contacting the silicon oxynitride layer.

142. (Currently Amended) The apparatus of claim 1, wherein the masking structure further ~~comprising~~ comprises a hydrogenated silicon oxynitride layer, and wherein the hydrogenated silicon oxynitride layer is directly contacting the amorphous carbon layer.

143. (Currently Amended) The apparatus of claim 142, wherein the masking structure further ~~comprising~~ comprises a photoresist layer, wherein the photoresist layer is directly contacting the hydrogenated silicon oxynitride layer.

144. (Previously Presented) The mask structure of claim 13 further comprising an antireflective layer, and wherein the antireflective layer is directly contacting the amorphous carbon layer.

145. (Previously Presented) The mask structure of claim 13 further comprising a silicon oxide layer, wherein the silicon oxide layer is directly contacting the amorphous carbon layer.

146. (Previously Presented) The mask structure of claim 145 further comprising a photoresist layer, wherein the photoresist layer is directly contacting the silicon oxide layer.

147. (Currently Amended) The mask structure of claim 13 further comprising a hydrogenated silicon oxide layer, wherein [[in]] the hydrogenated silicon oxide layer is directly contacting the amorphous carbon layer.

148. (Previously Presented) The mask structure of claim 147 further comprising a photoresist layer, wherein the photoresist layer is directly contacting the hydrogenated silicon oxide layer.

149. (Previously Presented) The mask structure of claim 13 further comprising a silicon oxynitride layer, wherein the silicon oxynitride layer is directly contacting the amorphous carbon layer.

150. (Previously Presented) The mask structure of claim 149 further comprising a photoresist layer, wherein the photoresist layer is directly contacting the silicon oxynitride layer.

151. (Currently Amended) The mask structure of claim 13 further comprising a hydrogenated silicon oxynitride layer, wherein the hydrogenated silicon oxynitride layer is directly contacting the amorphous carbon layer.

152. (Previously Presented) The mask structure of claim 151 further comprising a photoresist layer, wherein the photoresist layer is directly contacting the hydrogenated silicon oxynitride layer.

153. (Previously Presented) The apparatus of claim 1, wherein the device structure includes a layer of a non-conducting material.

154. (Previously Presented) The apparatus of claim 153, wherein the device structure further includes a layer of a conducting material.